

Hack and Squirt

Tennessee Department of Agriculture, Division of Forestry

Hack-and-squirt herbicide injection is a cheap and easy way to kill undesirable trees. It can be used alone or in combination with other vegetative control methods for

- Natural regeneration
- Crop tree release
- Timber stand improvement
- Stand conversion
- Cull tree removal
- Creating cavity trees for wildlife

Equipment needed:

- Small sharp ax or hatchet
- File for sharpening
- Quart capacity trigger-activated squirt bottle (1 ml/squirt) with chemical resistant seals
- Safety glasses
- Rubber gloves
- Chainsaw chaps

Commercial squirt bottles are available at auto supply stores, chemical supply catalogues and forestry equipment suppliers.

Wear personal protective equipment as specified on herbicide label.

Cut into the tree at a height that is comfortable for you. Strike the tree at a downward angle. Be sure the cut penetrates into the sapwood. Each cut must form a pocket that will hold the herbicide. Spilled herbicide is wasted unless it stays in the cut. Space the cuts evenly around the stem according to the label directions (see below). Squirt one "shot" into each cut.

When treating stump sprouts, inject each stem in the clump. Try to make cuts below the crotch of low forks. Some species such as sugar maple, hickory and chestnut oak have thick bark that is hard to penetrate and may require more cuts.

When preparing a site for natural regeneration, inject only trees of non-desirable species. Cut down non-merchantable trees of desirable species so that they will regenerate from stump sprouts.

Hack-and-squirt can be done in any season. However, spring sap flow can push out the herbicide. Frozen trees should not be treated. When hard freezes occur at night, antifreeze may be added according to label directions.

Herbicides for hack & squirt to control hardwoods (always follow directions on the label.)

Garlon 3-A/Arsenal mix works well on a broad range of hardwoods. Mix one part *Garlon 3-A* with three parts water, plus six ounces of *Arsenal AC* per gallon of mix. Make cuts around tree with ends of cuts one inch apart.

Tordon RTU: No mixing required – use full strength. Comes with a dye to help monitor application. Space cuts with two or three inches between cut ends. Can be used on stump cuts to prevent resprouting. Red maple is somewhat resistant.

Pathway: Another type of *Tordon*. Use full strength. Comes with a dye. Space cuts same as *Tordon*. Can be used to treat surfaces of cut stumps.

Arsenal AC: One part *Arsenal* to nine parts water. Hack once for every three inches of tree diameter (a 12 inch diameter tree will require four hacks.) Slow acting – may take two years to kill. Less effective on black locust, honeylocust, blackgum and redbud.

To control pine and red-cedar, use full strength *Garlon* with the ends of cuts two inches apart.

Sources for forestry herbicides and equipment

Local Farmers Cooperatives

Forestry Suppliers, Inc.
205 West Rankin St
Jackson MS 39201 1-800-647-5368

Ben Meadows Company
3589 Broad Street
Atlanta GA 30341 1-800-241-6401

UAP Timberland LLC
PO Box 557
Monticello AR 71655 1-870-367-8561
www.timberlandenterprizes.org for sales

Chemical Containers, Inc.
PO Box 1307
Lake Wales FL 33859 1-800-346-7867